

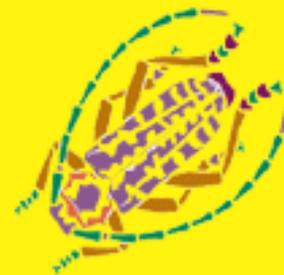
<http://www.oznet.ksu.edu/entomology/extension/extension.htm>

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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West Nile Virus Vaccine for People - an update:

The trial testing the safety of an experimental vaccine targeting West Nile virus opened on April 18, 2005 at the National Institutes of Health's Clinical Center in Bethesda, MD.

Fifteen healthy adult volunteers between the ages of 18 and 50 receive three injections of the DNA vaccine: one at the start of the trial, a second four week later, and a third four week after that. Volunteers will be monitored for possible symptoms and side effects as well as the body's ability to generate WNV- specific antibodies and T-cells. The vaccine cannot cause WNV infection or disease because it does not contain infectious material from the virus. This vaccine builds on an experimental vaccine developed by CDC that has been tested successfully in a variety of animals, including mice, horses, and American crows.

Two other human WNV vaccines are currently in clinical trials, however, it is not likely that any of these will be available for the general public in this year's mosquito season.

The information on WNV and mosquitoes can be found here:

<http://www.oznet.ksu.edu/westnilevirus/> OR <http://www.oznet.ksu.edu/library/ENTML2/MF2571.pdf>

Ludek Zurek

Hessian Fly:

Surveyed several wheat fields in southcentral Kansas on 18 May. Hessian Flies were evident in all fields surveyed, with infestations ranging between 10-100%. There is good news and bad news then, relative to the Hessian Fly. First, the bad news; for the producers who haven't checked your wheat fields lately you may find considerable lodging due to the larval feeding. We saw evidence of lodging with probably a little more

lodging to come especially in fields with thin stands or if we get some more wind prior to harvest. The good news however, is that all of the Hessian Flies we sampled, except one, were in the pupal (Flaxseed) stage which means there will be very little more damage from feeding. The flies will overwinter in this non-feeding stage but that does mean, based upon populations we saw, there will be considerable potential for fall Hessian Fly activity at planting time.

Jeff Whitworth

Chinch bugs:

Again, in southcentral Kansas on 18 May. Found adult chinch bugs and several recently hatched, 1st instar nymphs in the wheat. These chinch bugs will feed in the wheat until it is no longer succulent enough for them to extract nutrient and then move to adjacent sorghum or cornfields. This means, generally, that if your wheat is in the milk stage now you have 2-3 weeks before chinch bugs migrate to a new food source.

Jeff Whitworth

Bean Leaf Beetles on Newly Emerging Soybeans:

The bean leaf beetle is a red to light tan, 1/4 inch long beetle found in all parts of the state. The upper back is usually marked by 6 black spots near the midline and is often bordered by a narrow black band. The insects react to nearby disturbances by dropping motionless to the ground.

I would expect that during the next week or so that a few consultants in NE Kansas (at least) will be asking about bean leaf beetles. We typically find this insect in most soybean fields but generally do not verify need to treat more than isolated populations, most often in the NE. Young soybeans, during the first couple of weeks after emergence, generally receive the most attention from this pest. Look for bean leaf beetles on plants, crawling around on the soil surface on or possibly sheltered under debris and the edges of soil clods. Damage, if it develops, should just be beginning to show up in newly emerging fields. Typically, bean leaf beetles chew scattered oval holes of little economic consequence in the foliage during most of the season.

However, the border rows of newly emerging soybeans may support populations capable of causing a localized economic loss and occasionally field-wide problems occur. Severe cotyledon feeding, threatened destruction of the growing point, or populations of 7 beetles per row foot on soybeans with 4 or fewer nodes and 25 percent defoliation may justify limited-area treatments. A second generation may occur during reproductive development but it takes many more insects to cause economic loss if feeding is restricted to defoliation.

Another point of interest is that this insect also can transmit bean pod mottle virus. Research is underway to determine if reducing the treatment threshold would reduce the chance of plants developing this disease.

This insect is not difficult to kill. Insecticides listed in our Soybean Insect Management Recommendation

Guide that should give bean leaf beetle control include:

Carbaryl (Sevin) at 0.5 to 1 lb. a.i./acre;

Chlorpyrifos (Lorsban 4E, Nufos 4E) at 0.5 to 1 lb. a.i./acre;

Cyfluthrin (Baythroid) at 0.013 to 0.025 lb. a.i./acre (0.8 to 1.6 fl. oz. of product/acre).

Dimethoate (Check label – bean leaf beetles are not listed on all labels) at 0.5 lb. a.i./acre.

Esfenvalerate (Asana XL 0.66) at 0.03 to 0.05 lb. a.i./acre (5.8 to 9.6 fl. oz. of product/acre).

Gamma-cyhalothrin (Proaxis) at 0.0075 to 0.0125 lb. a.i./acre (1.92 to 3.20 fl. oz. of product/acre).

Lambda- cyhalothrin (Warrior with Zeon Technology) at 0.015 to 0.025 lb a.i./acre (1.92 to 3.20 fl. oz. of product/acre).

Microencapsulated Methyl Parathion (Penncap M) at 0.5 to 0.75 lb. a.i./acre (2 to 3 pt. of product/acre).

Permethrin (Ambush 2E, Pounce 3.2EC) at 0.05 to 0.10 lb. a.i./acre.

Thiodicarb (Larvin 3.2 EC) at 0.45 to 0.75 lb. a.i./acre.

Zeta-cypermethrin (Mustang MAX) at Apply 0.0175 to 0.025 lb. a.i./acre (2.8 to 4.0 fl. oz. of product/acre).

Randy Higgins

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Sincerely,

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